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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/123,100	05/06/2005	Philip P. Walsh	84680	6904
20736	7590	02/22/2006	EXAMINER	
MANELLI DENISON & SELTER 2000 M STREET NW SUITE 700 WASHINGTON, DC 20036-3307			CASAREGOLA, LOUIS J	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

11/123,100

Applicant(s)

WALSH ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8-12,18 is/are rejected.
- 7) ☒ Claim(s) 2,3,6,7,13-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

***Objections To Amended Specification & Drawing***

The amendment filed 12/27/05 is objected to under 35 USC 132(a) because it introduces new matter into the disclosure.

Applicants have amended drawing Figure 1 and page 9 of the specification to add output shafts and gearboxes to both of compressor drive turbines 22 and 24. In the preferred embodiment as originally disclosed, however, only power turbine 26 drives an output shaft, hence, the added material is not supported by the original disclosure. Furthermore, though original claims 4, 5, 11 and 12 recite that various turbines drive output shafts, none of these claims contemplate an arrangement in which a single engine has three turbines that all drive output shafts as presented in applicants' latest amendment. The amended subject matter is thus clearly new matter and should be removed.

***Claim Rejections - 35 USC 112***

Claims 4, 5, 11 and 12 are rejected under 35 USC 112, first paragraph, as the claimed invention is not described in such full, clear, concise and exact terms as to enable one skilled in the art to make and use it, and furthermore, the claimed subject matter fails to comply with the written description requirement.

Claims 4 and 5 specify that the second turbine drives an output shaft. As identified in parent claim 3, the second turbine is the turbine driving the upstream compressor. In the disclosed embodiment of the invention as shown in the original drawing, however, the turbine driving the upstream compressor, i.e. turbine 24, does not drive an output shaft. Claims 4 and 5 are thus directed to a feature that is not properly disclosed and not supported by the original written description of the invention.

Claims 11 and 12 specify that the first turbine drives an output shaft. As identified in parent claim 8, the first turbine is the turbine driving a first compressor; this could be either of the compressor drive turbines shown. In the disclosed embodiment of the invention shown in the original drawing, however, compressor drive turbine 22 does not drive an output shaft, and as pointed out above, this is also true of compressor drive turbine 24. Claims 11 and 12, like claims 4 and 5, are thus directed to a feature that is not properly disclosed and not supported by the original written description.

Claims 5 and 12 further recite that the output shaft is driven via a gearbox. No such element can be found in the original preferred embodiment. This feature is thus likewise unsupported by the original disclosure and written description.

***Claim Rejections - 35 USC 102***

Claims 1, 8 and 18 are rejected under 35 USC 102(b) as being anticipated by either Wyman or Kidd.

All features of the claimed gas turbine apparatus are present in prior art gas turbines of the type disclosed by Wyman and Kidd. Attention is called for example to the engine shown in Wyman's Figures 1; note compressor 12, combustor 13, turbine 11, and means 16 for injecting cooling liquid (water) into the combustor. Note also that while the recited means to inject cooling liquid are described as injecting this liquid during deceleration, these means are disclosed as a mere series of water injectors and valves. There are no automated controls responsive to specific conditions like deceleration. As a matter of intended use, the claimed coolant injection means could be manually operated during any desired phase of engine operation, but this is equally true of the corresponding coolant injection means disclosed by Wyman; see manual water valve 53. Wyman's system is thus considered sufficient to meet the claim language relating to water injection during deceleration.

Kidd discloses a further example of a gas turbine engine with combustor water injection; see Figure 5, elements 16, 30, 92, etc. Note that water injection valve 92 is operated by an automated control system, and as indicated by the graphs in Figure 4, Kydd's system will maintain a positive water/fuel ratio even when engine speed falls, i.e. going from right to left along the plotted operating characteristics. Kydd's gas turbine

apparatus thus also meets the claim language relating to water injection during deceleration.

Claims 9 and 10 are rejected under 35 USC 102(b) as being anticipated by Kidd.

Note that Kydd's engine includes second turbine 22B arranged downstream from first turbine 22A (claim 9), with the second turbine driving an output shaft (claim 10).

### ***Arguments***

Applicants' arguments directed to the previous grounds of rejection based on Rocklin et al have been reviewed. The points raised in these arguments are considered moot, however, in view of the new grounds of rejection presented in response to applicants' latest amendment.

### ***Allowable Subject Matter***


Claims 2, 3, 6, 7, and 13-17 contain allowable subject matter but are objected to as depending from a rejected parent claim. If rewritten in independent form, these claims will be allowed. Applicants are further advised that allowance of this case is con-

tingent upon removal of the drawing and specification amendments of 12/27/05 in addition to cancellation of the rejected claims.

***Final Rejection***

Applicants' amendment necessitated the new grounds of rejection. Accordingly, ***THIS ACTION IS MADE FINAL***. See MPEP 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.



L. J. Casaregola  
571-272-4826 (M-F; 7:30-4:00)  
571-273-8300 FAX  
February 21, 2006

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If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).